



**TECHNICAL REVIEW AND EVALUATION  
OF APPLICATION FOR  
AIR QUALITY PERMIT NO. 65988  
NORTH BAJA PIPELINE, LLC**

**I. INTRODUCTION**

This Class II synthetic minor renewal permit is issued to North Baja Pipeline, LLC, the Permittee, for the continued operation of a compressor station located at Ehrenberg in La Paz County, Arizona. This permit renews and supersedes operating Permit No. 55598 which expires on November 14, 2017.

**A. Company Information**

1. Facility Name: North Baja Compressor Station
2. Facility Location: 50650 Colorado River Road, Ehrenberg, AZ 85334
3. Mailing Address: 201 W. North River Dr., Suite 505, Spokane, WA 99201

**B. Attainment Classification**

**II. PROCESS DESCRIPTION**

The primary equipment consists of two (2) gas-fired, centrifugal turbines, rated at 7,700 hp. The compressor units are used to feed natural gas along a 79.8 mile long pipeline extending from an interconnection with a pipeline operated by El Paso Natural Gas to an interconnection with a pipeline operated by Transporadora de Gas Natural de Baja California. The pipeline is designed to carry 500 million cubic feet per day (mmcf/d) of pipeline quality natural gas. This equates to an annual throughput of 182,500 million cubic feet. The compressor station can operate 24/7 using three compressor units, fourth unit being the spare.

The facility has a 1,085 hp standby generator driven by a natural gas-fired reciprocating internal combustion engine. This generator is designed to provide power to the station in the event of power failures.

**III. EMISSIONS**

**Table 1: Potential Emissions**

Pollutant	Emissions (tons per year)
PM <sub>10</sub>	3.94
PM <sub>2.5</sub>	3.94
NO <sub>x</sub>	63.28
CO	71.63
SO <sub>2</sub>	2.03
VOC	18.21
HAPs	0.61

#### IV. APPLICABLE REGULATIONS

Table 2 displays the applicable requirements for each permitted piece of equipment along with a explanation of why the requirement is applicable.

**Table 2: Verification of Applicable Regulations**

Unit	Control Device	Rule	Discussion
Gas Turbines, GT-3 and GT-4		40 CFR 60 Subpart KKKK	These compressor units trigger 40 CFR 60 Subpart KKKK since these were manufactured after February 18, 2005.
Generator		A.A.C. R18-2-719 40 CFR 63 Subpart ZZZZ	Engines constructed prior to 2006 are subject to Existing Stationary Rotating Machinery standards under A.A.C. R18-2-719.  The National Emission Standard for Hazardous Air Pollutants (NESHAP) Subpart ZZZZ is applicable to reciprocating internal combustion engines (RICE) located at major and area sources of HAPs.



Unit	Control Device	Rule	Discussion
Fugitive dust sources	Water Trucks Dust Suppressants	A.A.C. R18-2 Article 6 A.A.C. R18-2-702	These standards are applicable to all fugitive dust sources at the facility.
Abrasive Blasting	Wet blasting; Dust collecting equipment; Other approved methods	A.A.C. R-18-2-702 A.A.C. R-18-2-726	These standards are applicable to any abrasive blasting operation.
Spray Painting	Enclosures	A.A.C. R18-2-702 A.A.C. R-18-2-727	This standard is applicable to any spray painting operation.
Demolition/renovation operations	N/A	A.A.C. R18-2-1101.A.8	This standard is applicable to any asbestos related demolition or renovation operations.
Mobile sources	None	A.A.C. R18-2-801	These are applicable to off-road mobile sources, which either move while emitting air pollutants or are frequently moved during the course of their utilization.

## V. PREVIOUS PERMIT CONDITIONS

Permit No. 55598 was issued on November 15, 2012, for the continued operation of this facility. Table 3 below illustrates if a section in Permit No. 55598 was revised or deleted.

**Table 3: Permit No. 65988**

Section No.	Determination		Comments
	Revised	Delete	
Att. A.	X		General Provisions - Revised to represent most recent template language.
Att. B. Condition II.A.3.b	X		Revised the permit condition according to last 5 years performance test results.
Att. B. Condition II.A.4.b	X		Revised the permit condition according to last 5 years performance test results.
Att. B. Condition II.B		X	The permittee has removed GT-1 and GT-2.
Att. B. Condition II.C.3.b (Now Condition II.B.3.b since original Att. B. Condition II.B was deleted)	X		Revised the permit condition according to 40 CFR 60.4340(a).
Att. C.	X		Equipment list was updated.



## **VI. MONITORING REQUIREMENTS**

### **A. Facility Wide Requirements**

The Permittee shall conduct an instantaneous survey of visible emissions from both process stack sources, when in operation, and fugitive dust sources at the frequency specified in the permit. If the plume on an instantaneous basis appears less than or equal to the applicable opacity standard, then the Permittee shall keep a record of the name of the observer, the date on which the instantaneous survey was made, and the results of the instantaneous survey.

If the plume on an instantaneous basis appears greater than the applicable opacity standard, then the Permittee shall immediately conduct a six-minute observation of the plume.

- (1) If the six-minute observation of the plume is less than or equal to the applicable opacity standard, then the Permittee shall record the name of the observer, the date on which the six-minute observation was made, and the results of the six-minute observation.
- (2) If the six-minute observation of the plume is greater than the applicable opacity standard, then the Permittee shall do the following: adjust or repair the controls or equipment to reduce opacity to less than or equal to the opacity standard; record the name of the observer, the date on which the six-minute observation was made, the results of the six-minute observation, and all corrective action taken; and report the event as an excess emission for opacity in accordance with Condition XII.A of Attachment "A"; and conduct another six-minute observation to document the effectiveness of the adjustments or repairs completed.

### **B. Combustion Turbines Requirements**

For All Turbines the Permittee shall record the monthly consumption of natural gas fired in all the gas turbines identified in Attachment "C" of this permit. At the end of each month, the Permittee shall sum and record total monthly natural gas consumption in all the gas turbines in MMBtu for that month. At the end of each month, the Permittee shall sum the preceding 12-month natural gas consumption from the gas turbines in MMBtu to demonstrate compliance with Condition II.B.2.

### **C. Emergency Generator**

#### **1. Existing Source Requirements**

The Permittee shall keep records of fuel supplier certifications documenting the lower heating value of the fuel. These records shall be made available to ADEQ upon request.

#### **2. National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements**

The Permittee shall operate and maintain at all times the generator, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions.



#### **D. Fugitive Dust**

1. The Permittee is required to keep record of the dates and types of dust control measures employed.
2. The Permittee is required to show compliance with the opacity standards by having a Method 9 certified observer perform monthly survey of visible emission from fugitive dust sources. The observer is required to conduct a 6-minute Method 9 observation if the results of the initial survey appear on an instantaneous basis to exceed the applicable standard.
3. The Permittee is required to keep records of the name of the observer, the time, date, and location of the observation and the results of all surveys and observations.
4. The Permittee is required to keep records of any corrective action taken to lower the opacity of any emission point and any excess emission reports.

#### **E. Periodic Activities**

1. The Permittee is required to record the date, duration and pollution control measures of any abrasive blasting project.
2. The Permittee is required to record the date, duration, quantity of paint used, any applicable MSDS, and pollution control measures of any spray painting project.
3. The Permittee is required to maintain records of all asbestos related demolition or renovation projects. The required records include the "NESHAP Notification for Renovation and Demolition Activities" form and all supporting documents.

#### **F. Mobile Sources**

The Permittee is required to keep records of all emission related maintenance performed on the mobile sources.

### **VII. TESTING REQUIREMENTS**

For CO during every permit term the Permittee shall conduct a performance test on the stacks of the gas turbines to determine compliance with CO emission rate in Condition II.A.3.a. Performance testing will be conducted and data reduced in accordance with EPA Reference Method 10, 40 CFR 60, Appendix A.

For NO<sub>x</sub> the Permittee must perform annual performance tests in accordance with 40 CFR 60.4400 to demonstrate continuous compliance. If the NO<sub>x</sub> emission results from the performance test is less than or equal to 75 percent of the NO<sub>x</sub> emission limit for the turbine, the Permittee may reduce the frequency of subsequent performance tests to once every 2 years (no more than 26 calendar months following the previous performance test). If the results of any subsequent performance test exceed 75 percent of the NO<sub>x</sub> emission limit for the turbine, the Permittee must resume annual performance tests.

### **VIII. LIST OF ABBREVIATIONS**

A.A.C. .... Arizona Administrative Code



ADEQ .....	Arizona Department of Environmental Quality
CO .....	Carbon Monoxide
EPA .....	Environmental Protection Agency
hp .....	Horsepower
MMBtu/hr .....	Million British Thermal Units per Hour
NSPS .....	New Source Performance Standards
NO <sub>x</sub> .....	Nitrogen Oxide
PM .....	Particulate Matter
PM <sub>2.5</sub> .....	Particulate Matter Nominally less than 2.5 Micrometers
PM <sub>10</sub> .....	Particulate Matter Nominally less than 10 Micrometers
PTE .....	Potential-to-Emit
SO <sub>2</sub> .....	Sulfur Dioxide
TPY .....	Tons per Year
VOC .....	Volatile Organic Compound

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